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## Including IT service management in the Computing curriculum: a caricature approach.

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# Including ITSM in the Curriculum

## A caricature approach

David Bowers, David Morse

School of Computing & Communications, The Open University

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# Abstract



- We should be teaching IT Service Management (ITSM) as part of computing
- ITSM is incredibly boring (especially ITIL)
- A caricature approach helps.

# Motivation

# Why on earth...?

- It's just industrial training, no “academic” content
- It's just rote-learning
- It's just for quality geeks / help-desk types
- ITIL is just a money-making scam for Axelos\*
- ITIL is so last decade ... everything is Agile (Devops) now ...
- Why on earth would we want to teach something that hasn't changed since 2011?

# Well, actually,...



- ITIL foundation was (2011-12) the most frequently mentioned certification in job adverts
- Underpins about a quarter of the BCS Breadth of Knowledge test
- It's all about delivering value to customers
- It's an essential complement to (project-focussed) Software engineering
- It's about a whole load of real-world professional issues

# Well, actually,...

- ITIL foundation was (2011-12) the most frequently mentioned certification in job adverts
  - *Employability*
- Underpins about a quarter of the BCS Breadth of Knowledge test
  - *Employability / professional issues (LSEPI)*
- It's all about delivering value to customers
  - *Commercial aspects, trade-offs etc.*
- It's an essential complement to (project-focussed) Software engineering
  - *i.e., what happens **between** projects... (LSEPI)*
- It's about a whole load of real-world professional issues
  - *LSEPI*

# One might even argue...

- That it should be an integral part of SW Engineering
  - Lifetime operation rather than project delivery
  - An awful lot of NF requirements...
- But it doesn't fit
  - Focus on discrete deliverables
  - Sw engineers are focussed on development, not delivery
- And it's not formal enough
  - No UML, Z, process algebras,...



# We know that a lot of SW projects fail

- Often because some service management aspects ignored
  - T5 baggage handling – no proper transition plan
  - BA data centre – whatever happened to continuity planning?
  - Universal Credit
    - (although certain ex-ministers claim it hasn't failed yet)
  - RBS software updates
- Gives a clue about how to approach it
  - *How might things go wrong if we ignore Service Management?*

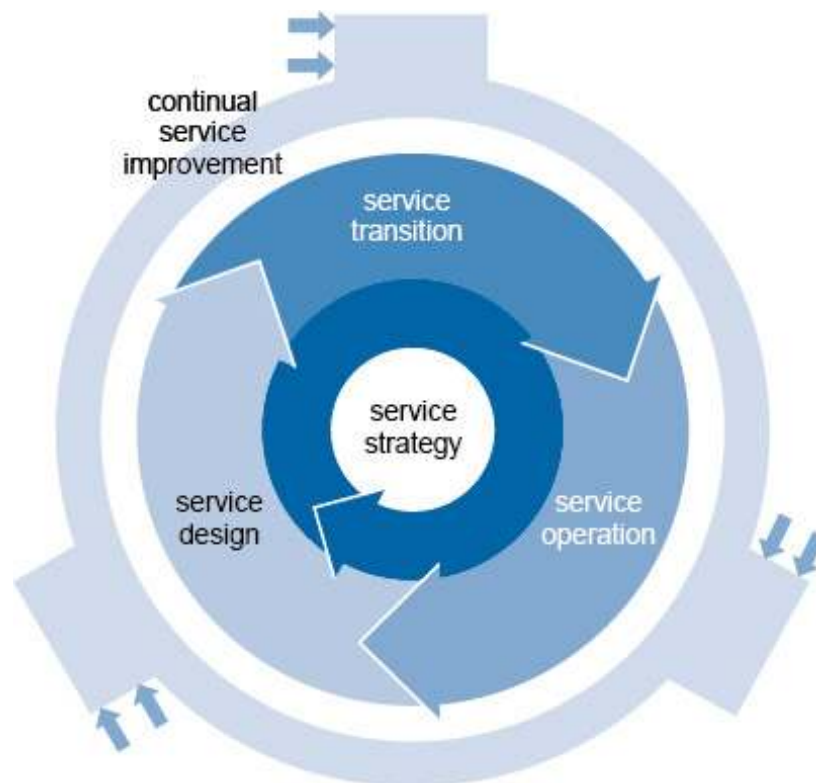
ITIL

# Background



- Developed by Cabinet office as library of best practice
- Initial focus on operations
- By the time of V3 (2007, 2011) had adopted a “Service Lifecycle” as an organising principle
- IP sold off to joint CO/publisher commercial venture – Axelos
  - Who, of course, aim to maximise the return on the IP
- Due to be “refreshed” in 2018
- Authors attempted to make it “respectable”

# The ITIL service lifecycle



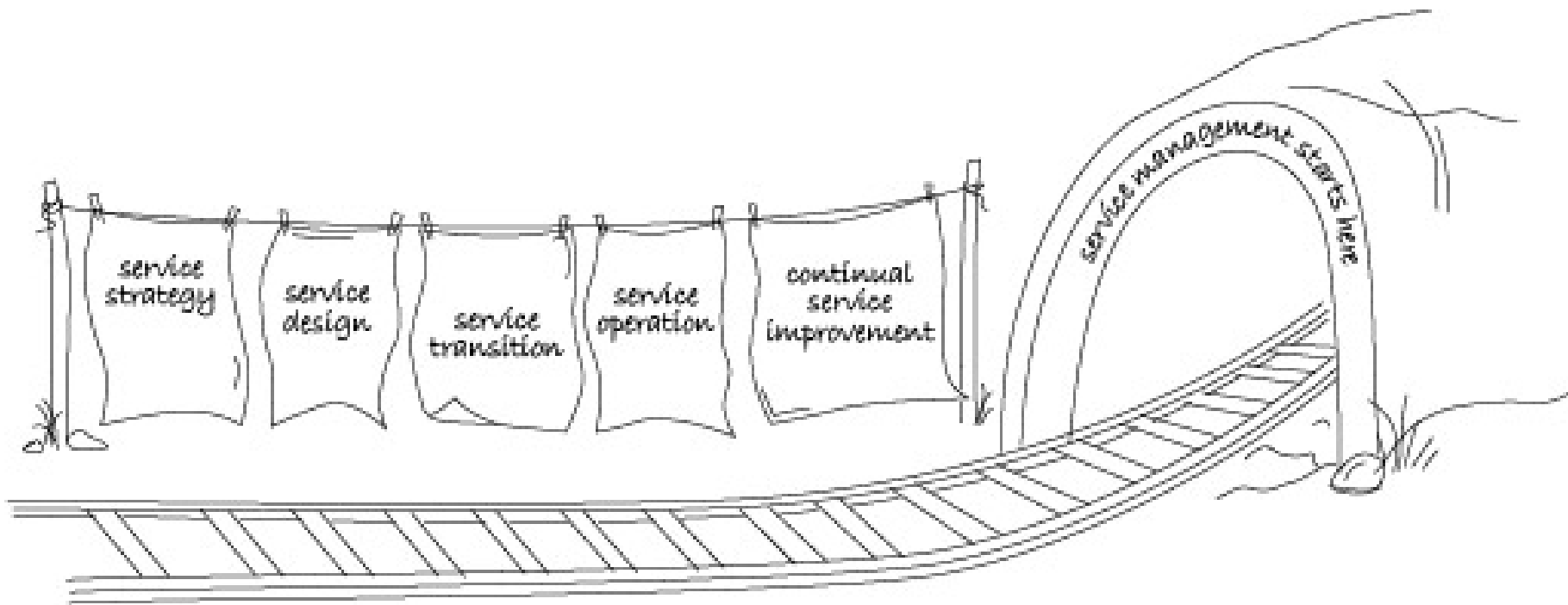
5 “stages”  
29 processes  
Countless 2, 3 and 4-letter acronyms

Foundation syllabus focusses on  
“what” and “what’s it called”

For HE, need focus of “why”, “so what”

# ITIL – Adopt and Adapt

Not, “start here and don’t even draw breath until you’ve finished...”



# And there's the “Agile” debate

- A bit of an unholy alliance
- Those who are frustrated by over-bureaucratic implementation
- Those who don't understand that ITIL is *deliberately* agnostic about SW Dev methodologies
  - It's not actually overlooked – just not ... specified
- So Devops (and various other “alternatives”) have sprung to life
- But ITIL still a good “reference” shopping list of concerns that need to be addressed.

# Aren't there just books?

- Well .... Yes ... but....!
- ITIL Foundation training (and supporting books) likened to a “religious experience”, with the exam being a catechism test.
- Most common comment from students – “*so many acronyms!*”
- Rabbit hole (or even warren!) of jargon
- I think I hold the record for having got to page 12 (of a book written for the BCS by ... “educators”) before falling asleep...!
- Only a minor paraphrase:
  - *In the beginning was The Service, and The Service was ITIL, and ITIL was the Service, and without ITIL was not anything served....*

# What are we trying to achieve?



# By the end of the course...



- Have a general appreciation of the importance of SM
- Understand that services are persistent
- Grasp some fundamental principles of SM
  - Services are about delivering outcomes to customers,
    - Not vanity projects for the latest SW technology
  - Services shouldn't be withdrawn until their replacements are working
  - People (including "users"!) are quite important to the success of services

# Enter Ben (and Georgina and Alex...)

- Although all three characters have computing “diplomas”, Ben’s main interest is running his farm as a nature reserve
- His booking system used to be a diary, pencil, and loads of post-it notes...
- ... and he relied on physical posters for publicity.
- Because he Knows what he is Doing with Computers, he decides to replace the booking system with an email system, and the posters with a website
  - So he throws away the post-it notes and diary...
  - ... and stops printing posters...
  - ... and then discovers that nobody knows how to book, or even that his farm exists!

# The scenario develops...



- Working through the stages of the lifecycle.
- Ben is assisted by Georgina (who is full of common sense) and Alex (who is an IT contractor).
- Vignettes to illustrate key points
  - Like not withdrawing services before replacement is working
  - For change management, not replacing Windows with Linux (on his pc), without checking that everything will still work...
  - For supplier management, choosing between a “jumped-up townie nerd” and Alex, who is also sensible and sympathetic
  - In strategy management, getting across the “future value of money”
  - In service design, remembering to think about availability, capacity and service levels *at the design stage*
  - In service improvement, not just deleting old (unanswered) emails to meet a response time KPI

# Why not a real case-study

- It would be far too complicated
  - Wouldn't be able to see the wood for the trees
- Anything from the ItSM community likely to focus on detail rather than general issues
- And people don't want to advertise their failures!

# Assessment



- Examination
- Short questions about the way things fit together
  - Moved away from “memory test” of the jargon – more qualitative
- Longer questions
  - Descriptive / discursive for a scenario
  - Diagnostic for a caricature scenario
    - “what seems to have been overlooked? ... why was it important? ... what’s gone wrong?”
- Hard work for students
  - But that’s as much about OU culture as the approach

# Does it work?

# From the perspective of the teachers ...

- Universally complimented by those having to teach this material
- Industrial Assessor:
  - “The uncomplicated and slightly tongue in cheek style of the author does much to engage the learners interest, aided by the back story of the scenarios.”
- Forum moderator / critical reader:
  - “I like Ben – he helps bring ITIL to life, and injects a little humour”
- Author of update
  - It’s become surprising easy to write another short episode to illustrate any concept that was wanting previously

# And the students?

- More equivocal
- Most negative comments about the number of acronyms in ITIL
- Several positive comments about having gained certification, understood their work environment better, even having helped introduce SM into their workplace
- Nearly all were critical of the reference book (although some did like having something they could just “learn”...)
- Some felt the approach was a bit verbose
- Probably the wrong question...



# What should it be compared with?

- The books – generally dreadful – wrong focus for HE
  - An exception – Claire Agutter’s *ITIL Lifecycle Essentials* (2013) IT governance publishing
  - Still a “what are the nuts and bolts called” approach, but a lot better than the “official” Axelos offerings
- The intense “cramming” courses on offer commercially?
- Even “manager’s awareness” books are far too heavy on the nuts-and-bolts jargon
- The “what went wrong” diagnostics seem to be more associated with later stages of ITIL training
  - Particularly the “managing across the lifecycle” – which is the final certification

# How has it helped



- An important aspect of IT management
- A dearth of resources that look at “why?” or “so what?”
- An opportunity to bring some of the more obscure aspects of Service Management to life
  - Without getting bogged down in detail
- Helping students to recognise what can go wrong if SM is overlooked or poorly managed

# ITIL vignettes

- Supporting material for dry topic
- Don't take it too "seriously"
- Would it be of value to share the material in the community?

# Thank you for listening

Any comments or questions?



